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PREDICT EPHEMERAL AND PERENNIAL RANGE QUANTITY AND QUALITY DURING NORMAL GRAZING SEASON

Gordon Bentley Bureau of Land Management Riverside, California 92502

2 January 1973

Type I Progress Report for Period 1 November 1972 - 31 December 1972

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(E73-10061) PREDICT EPHEMERAL AND PERENNIAL RANGE QUANTITY AND QUALITY DURING NORMAL GRAZING SEASON Progress (Bureau of Land Management, Riverside, G3/13CSCL 08B 3 p HC \$3.00

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Prepared for:

Goddard Space Flight Center Greenbelt, Maryland 20771

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Type I Progress Report ERTS-A

a. Title: Predict Ephemeral & Perennial Range Quantity & Quality During Normal Grazing Season

ERTS-A Proposal No.: SR 147

b. GSFC ID No. of P.I.: IN 417

c. Statement and explanation of any problems that are impeding the progress of the investigation:

During this 2-month period I have continued to experience difficulty in obtaining satellite imagery from NASA. I have been able to obtain only 70 mm positive transparencies from my original data request for 242 mm and 70 mm positive transparencies. I have ordered black and white paper prints, 242 mm transparencies, and color composites; receiving only a partial shipment of black and white prints. This lack of data has seriously hampered my progress. To date, products produced on the I2S viewer-combiner have been of poor quality and limited use. 70 mm imagery is not useful except with the $\rm I^2S$. Data more useful to me has not been forthcoming from NASA.

As a stop-gap measure, I have ordered imagery from the Sioux Falls Data Facility. I received part of one order. It takes me 6 weeks to 2 months and sometimes longer to get data from Sioux Falls. I have yet to receive imagery from a request sent on October 24, 1972.

d. Discussion of the accomplishments during the reporting period and those planned for the next reporting period:

Imagery has been combined on the I²S viewer, images photographed, film processed and the finished color image distributed to field personnel for analysis. This process of data enhancement produces data of limited quality. Data received from NASA is incomplete in that the late launch of the satellite missed the normal growing seasons of my study sites and several passes of the satellite produced no usable imagery because of cloud cover. Repetitive coverage was obtained for only one site.

Based upon analysis of this limited data it is impossible to determine if relative differences in production of ephemeral plants can be observed. Site differences based on broad soil types can be seen. Whether or not vegetation conforms to these broad soil types remains to be determined. This will be done during the next 2 months.

I also plan to analyze data being collected at the University of Arizona, Office of Arid Lands Studies, for the late fall and winter seasons. This period was not specified by me as a time when data would be requested from NASA. However, this has been an unusually wet season and ephemeral plant production has been good.

e. Discussion of significant scientific results and their relationship to practical applications or operational problems including estimates of the cost benefits of any significant results:

None at present.

f. A listing of published articles, and/or papers, pre-prints, in-house reports, abstracts of talks, that were released during the reporting period:

None.

g. Recommendation concerning practical changes in operations, additional investigative effort, correlation of effort and/or results as related to a maximum utilization of the ERTS system:

I would recommend that NASA get imagery into the hands of Principal Investigators before imagery is processed for any other purposes.

h. A listing by date of any changes in Standing Order Forms:

None during this period.

i. ERTS Image Descriptor forms:

None.

j. Listing by date of any changed Data Request forms submitted to Goddard Space Flight Center/NDPF during the reporting period:

None.

k. Status of Data Collection Platforms (if applicable): N/A

cc: W0,420 W0,510 Tordon Gentley